Statement of Facts GAO's Review of Emerging Drinking Water Contaminants - Comments on Perchlorate, pages 68-88

1. Consistency in discussing the relative source contribution for perchlorate.
On page 69, lines 10-12, the GAO states, "EPA has generally applied a default relative source contribution factor of 20 percent when using the percentage method because the agency has typically lacked adequate data to develop relative source contribution factors." This is an accurate description of RSC application; however, on 1) page 68, lines 22-25, GAO refers to the subtraction method as a "non-traditional approach," 2) page 69, line 2, GAO refers to the percentage method as a "standard approach," and 3) page 82, lines 6-20, GAO states, ". . . the guidance cautions that the use of the subtraction method is directly counter to agency policies, explicitly stated in numerous programs, regarding pollution prevention." This last statement is not only inconsistent with EPA's application of the RSC and statement on page 69, but the GAO inappropriately used EPA's Clean Water Act Ambient Water Quality Criteria guidance in making a point about the Safe Drinking Water Act perchlorate regulatory determination. EPA recommends striking lines 6-20 on page 82 and revising text in items 1 and 2 accordingly.

2. Over-arching issue that EPA withheld discussion of Huber exposure study limitations in the 2008 perchlorate FRN.
GAO makes four incorrect statements of fact that EPA withheld discussion of the limitations of the Huber exposure study. EPA disclosed all significant uncertainties of the Huber exposure study that the Agency was aware of at that time the notice was published. This is an issue of timing, not that EPA chose not to disclose key concerns. The FRN was published in 2008 and the Huber paper in 2010. EPA provides recommended revisions to these four statements below. To read as ~~strikeout~~ and **insertion**.

1. Page 74, lines 10-14. "In its 2008 preliminary regulatory determination published in the FR, EPA identified ~~a few of~~ the **significant** limitations of its analysis estimating perchlorate exposure"
2. Page 75, line 22. "EPA ~~did not fully~~ disclose**d** ~~these~~ **the significant** uncertainties **identified at that time** in its preliminary regulatory determination notice."
3. Page 76, line 10. "While EPA ~~did not~~ disclose**d** in its 2008 preliminary regulatory determination the significant uncertainties **that it was aware of at that time** . . ."
4. Page 80, line 10-12. "~~While~~ EPA had a version of the methodology reviewed by three independent peer reviewers in 2007~~, some of the key concerns the reviewers identified are highlighted above because EPA did not address them~~**and addressed the key concerns the reviewers identified.**"

3. EPA's minimum reporting level for perchlorate.
On page 77, line 24, GAO states, "EPA's testing program used a relatively insensitive minimum detection limit of 4 micrograms of perchlorate per liter of water.[1]"

The use of "minimum detection limit" should be changed to "minimum reporting level" (MRL). The MRL was set at 4 ppb based on Method 314.0 analytical capability. At the time 314.0 was developed (1999), this concentration was lower than any concentration of expected health concern. At that time, California Department of Health Services had an established limit for perchlorate at 18 µg/L. This method was approved through supplemental UCMR1 regulatory action on March 2, 2000 in an FRN (65 FR 11372) mandating monitoring perchlorate to an MRL of 4 µg/L.

On the Massachusetts Department of Environmental Protection (MAssDEP) web site, you'll find perchlorate Q&As at this URL: http://www.mass.gov/dep/toxics/pchlorqa.htm

Here you'll find the following:

> "Why Did MassDEP Choose To Address Perchlorate Risk?
> In April 2002, the Bourne Water District (BWD) asked MassDEP for guidance on perchlorate, after the compound was detected in their wells. At that time, no drinking water standard had been set by the either the U.S. Environmental Protection Agency (USEPA) or the state. Given the seriousness of the potential adverse effects associated with perchlorate and the fact that children were at risk, combined with uncertainty over the schedule of federal efforts to establish a drinking water standard for perchlorate, MassDEP provided interim guidance to the BWD and initiated the standard setting process."

Perchlorate was detected at BWD as a direct result of the UCMR1 monitoring program, which started in January 2001. This detection prompted MassDEP to consider a state requirement, which likely would not have taken place without the UCMR1 results. MassDEP slightly revised Method 314 and nominally increased the sensitivity to support an MRL at 2 µg/L and their monitoring program began in 2004. Their web posted PWS monitoring results support this time frame (http://www.mass.gov/dep/water/drinking/perctest.pdf) as does a second Q&A, as follows:

> "Is it Feasible to Meet the Standard of 2 ppb?
> Statewide occurrence monitoring conducted in 2004, using then newly improved analytical techniques, identified relatively few contaminated water supplies, suggesting a manageable aggregate cost for clean-ups. Treatment technologies have also been demonstrated to be capable of removing perchlorate in drinking water to low levels."

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[1]In 2002, Massachusetts' tests for perchlorate were sensitive enough to detect concentrations of perchlorate of less than 1 part per billion. DOD and DOE tests have also detected concentrations of perchlorate in drinking water and groundwater of less than 1 part per billion.

The UCMR1 monitoring requirement for perchlorate extended from 2001 through 2003, prior to the start of the MassDEP perchlorate monitoring program in 2004.

EPA recommends the following revision, "EPA's testing program used a ~~relatively insensitive~~ minimum ~~detection~~ **reporting** limit of 4 micrograms of perchlorate per liter of water.[2]"

[2] ~~In 2002, Massachusetts' tests for perchlorate were sensitive enough to detect concentrations of perchlorate of less than 1 part per billion. DOD and DOE tests have also detected concentrations of perchlorate in drinking water and groundwater of less than 1 part per billion.~~